REMARKS

Claim Objections

Claims 18, 20 and 21 have been amended to correct the spelling error noted in paragraph 2 of the Detailed Action.

Claim Interpretation

Paragraph 3 of the Detailed Action states that it is unclear how a message data structure can include a sender queue and a receiver queue. It is respectfully submitted that there is absolutely no reason why a data structure should not contain one or more queues. Indeed, the present application describes exactly such a data structure: see page 3, lines 12 - 27, which details a message data structure containing two queues *sender[i]* and *receiver[i]*.

In this connection, it should be noted that the present invention is concerned with modeling a target system, i.e. with constructing a software model that simulates the behavior of a target system. The message data structure is therefore not an actual message, but rather it is a collection of data that is used to represent the functionality of a message in the simulated system.

Paragraph 3 of the detailed action also states:

> "Therefore, this claim was interpreted to mean that the message data structure contains a *pointer* to a sender or receiver process that have queues in which the messages can be stored"

It is respectfully submitted that, in view of the above comments, this interpretation is not entirely correct. In particular, the sender and receiver queues referred to in claim 4 are clearly part of the message data structure, not part of the sender and receiver processes.

Regarding paragraph 4 of the Detailed Action, it is believed that "queuing a process" on the sender or receiver queue clearly means including a pointer to the process on that queue. For example, in the present specification, the pointer arrays *sender[i]* and *receiver[i]* form sender and receiver queues for processes waiting to send and receive messages (page 3, last 4 lines -

page 4, line 3). Similarly, "scheduling a process" on the event queue clearly means including a pointer to the process on the event queue, as part of an event data structure (page 6, lines 5-6)

Claim Rejections - 35 USC §102 and §103

It is respectfully submitted that the Examiner's rejection of the claims is based on a misunderstanding of the Rayner reference (EP 0854429). For example, in paragraph 24 of the Detailed Action, the Examiner says that Rayner teaches:

> "processing each message-type item on the scheduler queue by calling both the sender and receiver processes of the message to which the item relates (column 11, lines 2-12)"

However, it is respectfully pointed out that the cited passage in Rayner merely teaches that the pop_events() function calls the change_state() function of S1 (i.e. the signal object). There is absolutely no teaching in Rayner of processing a scheduled message by calling both the sender and receiver processes of the message.

It is respectfully submitted that, in view of this fundamental misunderstanding of the Rayner reference on this important feature of the claims, the whole of the Examiner's arguments regarding the patentability of the claims are based on an incorrect assumption and are clearly in error.

Similarly, there is no suggestion in any of the other cited references of this feature of processing a scheduled message by calling both the sender and receiver processes of the message. It is agreed that in Lutter a VHDL signal contains the process id of the receiver (page 632, second column, lines 14-15) and also the process id of the sender is included in a record (page 632, second column, lines 18-19). But there is absolutely no teaching of calling both the sender and receiver processes.

It is agreed that, as per paragraph 33 of the Detailed Action, one cannot show nonobviousness by attacking references individually, where the rejections are based on combinations of references. However, it is respectfully submitted that, where a claim recites a combination of features A+B+C, and none of the references teaches or even remotely suggests feature C, then the combination of the references cannot possibly be held to render the combination A+B+C obvious when all they teach is A+B.

Claims 6 and 9, which related to composition/decomposition activities, have been cancelled and so it is clearly not necessary to consider the Hashmi reference (U.S. 6,161,081).

Conclusion

In summary, it is submitted that this application is now clearly in order for allowance and such action is respectfully solicited.

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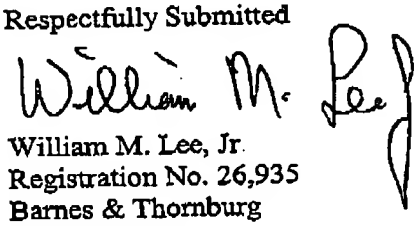
Respectfully Submitted



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